(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 19 July 2001 (19.07.2001)

PCT

(10) International Publication Number WO 01/51852 A1

(51) International Patent Classification7:

.....

F22B 37/52

(74) Agents: OBERHOLTZER, Steven, L. et al.; Brinks

(21) International Application Number: PCT/US01/01130

(22) International Filing Date: 12 January 2001 (12.01.2001)

•

English

(26) Publication Language:

(25) Filing Language:

English

(30) Priority Data: 60/175,998 12 Janua

12 January 2000 (12.01.2000) US

(71) Applicant (for all designated States except US): DIA-MOND POWER INTERNATIONAL, INC. [US/US]; 2560 E. Main Street, Lancaster, OH 43130 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): SHOVER, Steven, L. [US/US], 9730 Lake Road, Millersport, OH 43046 (US). OKEL, David, W. [US/US]: 12782 Oakmere Drive, Pickerington, OH 43147 (US). Hofer Gilson & Lione, P.O. Box 10395, Chicago, IL 60610 (US).

(81) Designated States (national): AE, AG, AL, AM, AT, AU,

AZ, BA, BB. BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES. FI, GB, GD, GE, GH, GM, HR, HU, ID, IL. IN, IS, JP, KE, KG, KP, KR, KZ. LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, IT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM). European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

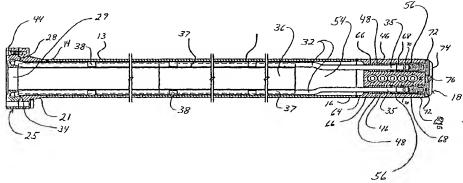
Published:

with international search report

 before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

[Continued on next page]

(54) Title: SOOTBLOWER LANCE TUBE FOR DUAL CLEANING MEDIA



(57) Abstract: A long retracting sootblower device for conducting different cleaning media types to the interior of a heat exchanger having a lance tube assembly (12), a feed tube, a carriage assembly (1), a first cleaning media supply, and a second cleaning media supply. The lance tube assembly includes a manifold (25), a hub (21) mounted to the manifold (25), a tube section (13) extending outward from the hub (21), and a nozzle assembly (18). The nozzle assembly includes nozzles (50, 52) adapted for directing a stream of cleaning media. The manifold (25) includes at least one cylindrical tube (32) with first and second ends, the first end (34) being permanently mounted to the manifold (25), and the second end (35) engaging the nozzle assembly (18). The manifold (25) and cylindrical tube (32) define a first high pressure passage for conducting cleaning media from the first cleaning media supply to the nozzle assembly (18). The manifold (25) also includes a shield assembly (36) for supporting the cylindrical tube (32) within the lance tube assembly (12)

WO 01/51852 A1